Serial No. 10/092,746 Page 2 of 12

LISTING OF CLAIMS:

Please reconsider the claims as follows:

- (previously presented) A method, comprising: 1. 1
- reducing the power level of an optical data signal propagating in an optical fiber 2
- path in response to a loss of a counter-propagating supervisory signal in the optical fiber 3
- path; 4
- reducing counter-propagating optical power in response to a loss of the optical 5
- data signal; and 6
- responsive to the loss of the optical data signal, reducing counter-propagating 7
- optical signal power output from at least one additional network element by a 8
- predetermined amount.
 - (canceled) 2. .
- (previously presented) The method of claim 1, wherein the step of reducing the 3. ļ
- power level of the optical data signal and the step of reducing counter-propagating optical 2
- power are performed substantially at the same time. 3
- (previously presented) The method of claim 1, wherein the step of reducing the 4.
- power level of the optical data signal comprises at least one of: 2
- reducing pump power supplied by at least one pump source coupled to the optical 3
- fiber path; and 4
- reducing gain supplied by at least one optical amplifier coupled to the optical fiber 5
- 6 path.
- (previously presented) The method of claim 4, wherein the step of reducing the ı
- counter-propagating optical power comprises reducing counter-propagating pump power 2
- supplied by at least one pump source coupled to the optical fiber path. 3

l

Serial No. 10/092,746 Page 3 of 12

- 1 6. (previously presented) The method of claim 1, wherein the power level of the
- 2 optical data signal is reduced by a predetermined amount such that harm from an optical
- 3 signal emanating from a fault in the optical fiber path is substantially reduced.
- 7. (previously presented) The method of claim 1, wherein the counter-propagating
- 2 optical power is reduced by a predetermined amount such that harm from an optical
- 3 signal emanating from a fault in the optical fiber path is substantially reduced.
- 1 8. (previously presented) The method of claim 1, further comprising the step of
- restoring the power level of the optical data signal in response to the presence of the
- 3 counter-propagating supervisory signal.
- 9. (previously presented) The method of claim 1, further comprising the step of
- restoring the counter-propagating optical power in response to a notification of the
- 3 presence of the counter-propagating supervisory signal.
 - 10. (previously presented) A method, comprising:
- a) detecting loss of a supervisory signal counter-propagating in an optical fiber
- 3 path at a first network element;
- b) responsive to the loss of the supervisory signal in the optical fiber path,
- 5 reducing the power level of an optical data signal output to the optical fiber path from the
- 6 first network element by a predetermined amount;
- 7 c) detecting loss of the optical data signal propagating in the optical fiber path at a
- 8 second network element;
- d) responsive to the loss of the optical data signal, reducing counter-propagating
- optical power output from the second network element by a predetermined amount; and
- e) responsive to the loss of the optical data signal, reducing counter-propagating
- 12 optical signal power output from a third network element by a predetermined amount.
 - 11. (canceled)

Serial No. 10/092,746 Page 4 of 12

- (previously presented) The method of claim 10, wherein the steps b) and d) are 12. 1
- performed substantially at the same time. 2
- (original) The method of claim 10, wherein step b) comprises at least one of: 1 13.
- reducing pump power supplied by at least one pump source coupled to the optical 2
- fiber path in the first network element; and 3
- reducing gain of at least one optical amplifier coupled to the optical fiber path in 4
- the first network element. 5
- (previously presented) The method of claim 10, wherein step d) comprises] 14.
- reducing counter-propagating pump power supplied by at least one pump source coupled
- to the optical fiber path in the second network element.
- 15. (canceled)
- (previously presented) A network element adapted for use in an optical I 16.
- transmission system, comprising:
- a first gain element, for providing an upstream optical signal to an upstream 3
- optical fiber path: 4
- a controller, for reducing the power level of the upstream optical signal generated 5
- by the first gain element to the upstream optical fiber path in response to the absence of a 6
- counter-propagating supervisory signal in the upstream optical fiber path; 7
- a second gain element, for providing a counter-propagating downstream optical 8
- signal to an downstream optical fiber path; and 9
- the controller, for reducing the power level of the counter-propagating 10
- downstream optical signal generated by the second gain element to the downstream 11
- optical fiber path in response to the loss of an optical signal propagating in the 12
- downstream optical fiber path, wherein the controller, in response to the absence of the 13

Serial No. 10/092,746 Page 5 of 12

- counter-propagating supervisory signal, provides an indication to a downstream network 14
- element that the supervisory signal is absent. 15
- 17. (canceled) 1
- (original) The network element of claim 16, wherein the network element 18. 1
- comprises a repeater. 2
- (original) The network element of claim 18, wherein the at least one gain element 19. 1
- comprises at least one of an optical amplifier and a pump source. 2
- (previously presented) In a lightwave communication system having a plurality of 20. 1
- network elements for supplying an optical signal adapted for transmission in an optical 2
- fiber path, an apparatus for controlling power of an optical signal propagating in the 3
- optical fiber path comprising: 4
- means for detecting loss of a supervisory signal counter-propagating in the optical 5
- 6 liber path:
- a first automatic power reduction circuit for reducing the power level of an optical 7
- data signal output to the optical fiber path from a first network element by a 8
- predetermined amount in response to the loss of the supervisory signal in the optical fiber 9
- path; 10
- means for detecting loss of the optical data signal propagating in the optical fiber 11
- path; 12
- a second automatic power reduction circuit for reducing counter-propagating 13
- optical power output from a second network element by a predetermined amount in 14
- response to the loss of the optical data signal; and 15
- a controller, in response to the absence of the counter-propagating supervisory 16
- signal, provides an indication to a third network element that the supervisory signal is 17
- absent. 18

Jan-07-2008 12:26pm From-Patterson & Sheridan, LLP - NJ +17325309808 T-244 P.006/012 F-434

Serial No. 10/092.746 Page 6 of 12

21. (canceled)

627833-2